UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,450	08/10/2001	Werner Bauer	BAUER, W. - 1	4161

7590 04/11/2006

COLLARD & ROE, P.C.
1077 Northern Boulevard
Roslyn, NY 11576-1696

EXAMINER	
HSU, ALPUS	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/927,450	BAUER, WERNER	
	Examiner	Art Unit	
	Alpus H. Hsu	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1/10/02.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, "said analog/digital converter", line 6, "the signal shape", "said digital data signals", each lacks antecedent basis.

In claim 8, it is confusing and contradictory for setting transmission frequency at 868 MHz since the claim depends on claim 7, which sets the transmission frequency at 2.465 GHz.

In claim 9, line 2, "the signal-shape processing" lacks antecedent basis.

In claim 10, line 2, it is unclear as to what "TTL level" stands for.

In claim 11, line 3, "the signal edges" lacks antecedent basis.

In claim 15, line 2, "said second signal-processing circuit" lacks antecedent basis since the claim depends on claim 1.

In claim 16, line 2, "of" should be deleted.

In claim 20, line 5, "said signal-modification circuits" lacks antecedent basis.

In claim 23, lines 3-4, "the signal processing function", "said second processing circuit", each lacks antecedent basis.

In claim 24, lines 2-3, "said receiving end arrangement" lacks antecedent basis.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-8, 11-17, 23, 24 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAYANT et al. in U.S. Patent No. 4,291,405, hereinafter referred as JAYANT, in view of STEEL et al. in U.S. Patent No. 4,737,969, hereinafter referred as STEEL.

Regarding claims 1, 2, 11-17, 23, 24 and 32, JAYANT discloses A digital data-transmission system for the transmission of digital audio data, comprising: a transmitting arrangement (180) comprising a first signal processing circuit (105, 106, 110, 112) coupled to output of an analog/digital converter (103) for processing the digital data signals; a transmitter (107) coupled to the output of the first signal processing circuit for transmitting the processed digital data signals; and, a receiving arrangement (109) for reconverting the data signals received from the transmitter, comprising: a receiver (150), a second signal-processing circuit (153, 155, 157, 160), coupled the output of the receiver for recovering from the received digital data signals, digital data signal with a signal shape analogous to that the original data signal of the transmitting arrangement.

JAYANT differs from the claims, in that, it does not disclose a specific signal processing circuit for converting the signal shape of said digital data signals to a signal shape that can be transmitted loss-free, which is well known in the art and commonly applied in communications field for interference reduction purpose. STEEL, for example, from the similar field of endeavor, teaches the specific signal processing circuit for converting the signal shape of said

digital data signals to a signal shape that can be transmitted loss-free (col. 2, lines 7-15, col. 4, line 66 to col. 5, 20), which can be easily adopted by one of ordinary skill in the art to implement into the system of JAYANT for interference suppression and error reduction to further improve the signal quality for transmission purpose.

Regarding claims 3-6, and 7-8, JAYANT fails to disclose the transmission medium between the transmitter and receiver are via fiber optic line or antennas, and the transmission frequency is either 2.465 GHZ or 868 MHz, which are known in the art as the designer's choices.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAYANT in view of STEEL as applied to claim 1 above, and further in view of COOPER in U.S. Patent No. 4,816,830.

Regarding claims 9 and 10, the system provided from the teaching of JAYANT in view of STEEL fails to disclose the signal shape processing being amplitude processing and the signal amplitude is adapted to TTL level, which is well known in the art and commonly applied in data signal processing field for waveform shaping purpose. COOPER, for example, from the similar field of endeavor, teaches the signal amplitude shaping scheme, providing signal amplitude is adapted to TTL level (col. 2, lines 32-41, 65-67), which can be easily adopted by one of ordinary skill in the art into the system from JAYANT in view of STEEL, to provide specific waveform shaping to further prevent performance degradation of signal processing.

7. Claims 18-22 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAYANT in view of STEEL as applied to claims 1, 16 and 23 above, and further in view of YAMAMOTO in U.S. Patent No. 4,378,593.

Regarding claims 18-22, 25-31, the system provided from the teaching of JAYANT in view of STEEL fails to disclose both signal processing circuits utilizing NAND gate circuits, buffer circuits, inverter circuits, and amplitude-trimming circuits for digital signal processing, which are all well known logic circuits for digital signal processing. YAMAMOTO, for example, from the similar field of endeavor, teaches the uses of NAND gate circuits, buffer circuits, inverter circuits, and amplitude-trimming circuits for digital signal processing (Figures 10, 14 and 16), which can be easily adopted by one of ordinary skill in the art into the system from the teaching of JAYANT in view of STEEL to provide the essential logic circuits to carry out the digital data signal processing for the purpose of reducing the system cost.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mason et al., Gampell et al. and Lindemann are cited to show the common feature of data transmission utilizing A/D converter, signal processing circuits, D/A converter, and reference clocks similar to the claimed invention.

Zuqert et al. and Yamada et al. are cited to show the feature of wireless audio signal transmission utilizing A/D converter, D/A converter and digital processors similar to the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH

Alpus H. Hsu
Primary Examiner
Art Unit 2616